

HIGH-FIDELITY TRANSCODING**ABSTRACT**

High-fidelity transcoding techniques are described. For example, a video
5 transcoder obtains re-coding data set elements for source format compressed video and
uses the elements for coding decisions and/or equivalent parameters when compressing
the video in a target format. This allows syntax elements and coding decisions to be
maintained across the two formats, including picture types, intra/inter macroblock
coding types, field/frame coding decisions, and/or quantization levels. This helps the
10 transcoder match quality in the compressed video between the source and target
formats, reducing transcoding losses. At the same time, the transcoder gives the target
format encoder the freedom to exploit additional compression opportunities to reduce
overall bitrate. The transcoder may apply proportional rate control so as to produce
output at a constant or relatively constant bitrate.